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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/537,738	03/29/2000	Nadeepuram Kuppanna Ranganathan	II-1	7052
38715	7590	04/12/2005	EXAMINER	
MIND LAW FIRM 3140 RED HILL AVENUE SUITE 150 COSTA MESA, CA 92626			VO, ANH T N	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 04/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/537,738

Applicant(s)

RANGANATHAN ET AL.

Examiner

Anh T.N. Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/24/05 has been entered.

CLAIM REJECTIONS

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-43 are rejected under 35 USC 103 (a) as being unpatentable over Niedermeyer et al. (5,343,226) in view of Marrison et al. (US Pat. 5,211,197).

Note: The method steps are inherently taught in the apparatus device/limitations in the rejections as follow:

Niedermeyeyr et al. disclose in Figures 1 and 9-11 an ink supply apparatus comprising:

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- a container (60) to hold ink;
- a first coupling component (see Fig. 10) of a duplex coupler formed to the container, wherein the duplex container has a poppet valve (94) that is configured to discontinue flow through the duplex coupler when the duplex coupler is uncoupled;
 - the reservoir is positioned below the second coupling and the reservoir has a floor that is substantially flat (Figs. 1 and 9);
- the floor has a pitch to urge the ink to an exit port (80) (Fig. 10);
- a line (18) in fluid communication with the port directs ink from the port, through a pump (12) and then to the print heads (16) (see Fig. 2);
- the container (60) is positioned above the reservoir (10), the first coupling of the container is connected to the second coupling of the reservoir, wherein the reservoir has a substantially flat surface with a downward pitch;
- the container (60) is positioned above the reservoir (10), the first coupling of the container is connected to the second coupling of the reservoir, wherein the reservoir has a substantially flat surface with a downward pitch toward an exit port (80). The exit port is coupled to the print heads by a fluid line (18); and
- an adapter (63) threadably received within a neck of the reservoir (10).

However, Niedermeyr et al. do not disclose a duplex coupler that includes a first coupling component and second coupling component being configured to mate with each other;

- the first coupling component having a first sealing member configured to discontinue flow from fluid line through the first coupling component when the duplex coupler is uncoupled and the second coupling component having a second sealing member configured to discontinue flow through the second coupling component when the duplex coupler is uncoupled, so as to mitigate leakage from the coupling components; the first sealing member is a first poppet having a first end; the second sealing member is a second poppet having a second end; and the first and second poppets are configured such that when the first and second coupling components are coupled; the first and second ends engage so as to force the respective first and second poppets to open and allow flow through the duplex; wherein:

- * the first coupling component includes a housing having an extension;

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- * the first sealing member is a poppet;
- * the second sealing member is a sleeve surrounding an axial post; and
- * the sleeve, extension, poppet and post are configured such that when the first and second coupling components are coupled, the sleeve and the extension engage so as to force the sleeve to compress and provide a through passage for the flow of fluid through the second coupling component and the poppet and post engage so as to force the poppet to open and allow flow through the first coupling component, thereby allowing flow through the duplex coupler.

Marrison et al. disclose in Figures 1-4 a quick disconnect liquid line coupling comprising:

- a duplex coupler (10, 60) that includes a first coupling component (10) and second coupling component (60) being configured to mate with each other;
- the first coupling component (10) having a first sealing member (38) configured to discontinue flow from fluid line through the first coupling component when the duplex coupler is uncoupled and the second coupling component (60) having a second sealing member (98) configured to discontinue flow through the second coupling component when the duplex coupler is uncoupled, so as to mitigate leakage from the coupling components (column 5, lines 39-43);
- the first sealing member is a first poppet having a first end;
- the second sealing member is a second poppet having a second end; and

the first and second poppets are configured such that when the first and second coupling components are coupled; the first and second ends engage so as to force the respective first and second poppets to open and allow flow through the duplex coupler (see Abstract and column 4, lines 38-66).

- wherein:

- * the first coupling component (10) includes a housing (24) having an extension;
- * the first sealing member is a poppet;
- * the second sealing member (60) is a sleeve (90) surrounding an axial post; and
- * the sleeve, extension, poppet and post are configured such that when the first and second coupling components are coupled, the sleeve and the extension engage so as to force the sleeve

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to compress and provide a through passage for the flow of fluid through the second coupling component and the poppet and post engage so as to force the poppet to open and allow flow through the first coupling component, thereby allowing flow through the duplex coupler (Figures 1-2),

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Marrison et al. in the Niedermeyr et al. ink supply apparatus for the purpose of providing a quick disconnect coupling for an ink supply line from an ink reservoir to an ink jet printing head.


Response to Applicant's Arguments

The applicant's arguments with respect to the prior art rejection have been carefully considered and have been traversed in view of the new grounds of rejection over Marrison et al. reference.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo. whose telephone number is (703) 305-8194. The examiner can normally be reached on Monday to Friday from 8:00 A.M. to 4:00 P.M. The fax number of this Group 2861 is (703) 305-3431 or 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.


ANH T.N. VO
PRIMARY EXAMINER
April 7, 2005